The Government have undertaken the execution of a 232
scheme for improvement of livestock in the State on 656
a systematic basis. A five-year scheme under which a large number of bulls of *Dhani* and *Sindhi* breeds are purchased and distributed among well-to-do *zamindars* in selected centres every year has also been sanctioned. Horse and mule breeding activities also have been started on a small scale, but a more comprehensive scheme is under consideration. Special interest has been taken in sheep-breeding, which is so important for the development of the wool industry in the State. Livestock shows are held at different places in the State every year, with a view to encouraging livestock improvement. More veterinary dispensaries are being opened every year. A laboratory has been established recently at Srinagar, where Goat Tissue vaccine is prepared for the treatment of animals.

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The Agriculture Department is doing useful work to 654
improve agricultural conditions in the State. The 242
activities of the Department which were at first confined to Kashmir Province only have been gradually extended to Jammu Province also. Agricultural and Horticultural experimental work and the demonstration of improved methods of cultivation of crops and fruit plants are important features of the Department's work. It also distributes improved seeds, grafted fruit plants, implements and manures, gives technical advice to orchardists and agriculturists and fights the San Jose Scale and other pests. Agricultural training is imparted to sons of *zamindars* at Government Farms. The Department has introduced high yielding varieties of wheat and corns including sugarcorns from the U. S. A., Canada and Russia, and several foreign vegetables and fruits.

The soils of Kashmir Valley are very fertile and [134]
irrigation is easy in areas removed from water. The [312]
improved seeds distributed by the Agriculture Department have found favour with the *zamindars*. Hand labour in Kashmir Province has been found to compete favourably with agricultural machinery. In Jammu Province, the use of new iron ploughs has been demonstrated and the *zamindars* have purchased such implements for their farms.

654 The saffron of Kashmir grown in one important locality
242 in the valley, is very famous. The Department has recently made some successful experiments in growing this saffron in Kishtwar in Jammu Province.

The Department also sends peripatetic parties of gardeners to the villages to demonstrate to the *zamindars* the operations connected with orchard laying. Demonstrations are given and the people educated regarding the control of pests. An Act for compulsory spraying of fruit-plants has been promulgated. Agriculture, fruit, and flower shows are held annually at several places in the State to arouse the interest of the people in improved methods of agriculture, horticulture and floriculture.

The Department maintains poultry farms in which improved breeds are raised. Eggs and chicks are supplied to *zamindars* from these farms. His Highness' Government are a member of the Imperial Council of Agricultural Research and the Council has provided funds for (1) the San Jose Scale and the Woolly Aphic Research Scheme, (2) the Rice Research Scheme and (3) the Vegetable Seed Production Scheme in the State. A fruit survey scheme has also been sanctioned by the Council.

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657 The establishment of *panchayats*[1] in the villages of the
[47] State under the Panchayat Act has received a great fillip
623 since 1937 with the creation of a separate Department of
[151] Rural Development. To start with the Government sanctioned a lump sum grant of Rs. 40,000 for execution of improvement works. The grant was raised to Rs. 1,00,000 later. Subsequently the grant of Rs. 40,000 provided for the *kandi* water supply was transferred to this Department, raising the total to Rs. 1,40,000 in S. 1996-97. In S. 1999 the grant stood at Rs. 2,00,000. The *panchayats* do not merely decide petty cases. They are engaged in the work of rural reconstruction and are co-operating with the Government in the matter of execution of improvement schemes in rural areas. Besides providing free manual labour for construction of village roads and sinking of wells and similar other works, the *panchayats* have also made cash contributions for these public utility works. Villagers are also contributing towards the purchase of the community Radio sets, digging of wells,

1 [ie, village councils, usually composed of five members -- Analyst]

245 *Silviculture.*—Great progress was made during this decade in silviculture. The establishment of a specialist Working Plan Circle enabled all the valuable 454 commercial forests to be brought under modern methods of management, thus enabling the forests to be fully utilised without impairing their future productivity. Silvicultural research was undertaken for the first time and a special Research Division was formed.

[313] *Commercial Development.*—Considerable progress has been shown in developing the commercial side of the department's activities. The out-turn of timber rose from 11 millions c.ft. to nearly 29 millions. The markets for minor [314] products were developed and extended. The production of crude resin rose from about 4,000 maunds to 55,000 maunds greatly adding to the prosperity of the people in parts of Jammu Province where resin tapping has now become a well established village industry. Kashmir Artemisia has been brought under commercial working and now contributes considerably to the world's supply of Santonin.

General.—The expansion of the Forest Department's activities have very largely benefitted the people of the State. Not only has the larger income produced by the department enabled the Government to spend more money on social services such as education and medicine, but the increasing out-turn of produce has provided a great deal of work for the inhabitants many of whom now rely on forest works to enable them to pay their land revenues.

241 **26. Agriculture.**—A glance at Imperial Table X (Occupation), will show that by far the major portion of the inhabitants of the State depend on agricul-242 ture for their livelihood. The prosperity of trade and transport is also indissolubly linked with the bright prospects of agriculture for if the purchasing power of the masses goes low on any account a season of depression sets in the trading section of the community. The activities of the Agriculture Department in promoting the interests of farmers by introduction of better varieties of seed, more scientific instruments, better manures and last but not least by awakening a new interest in agriculture by overcoming the apathy of ages are particularly relevant to the Census Report. Any invention or discovery which can double the yield of crops in this country is bound to multiply to the same extent the mouths that feed on it. The activities of the Agriculture Department of the State are, however, unfortunately concentrated in the Kashmir valley only, and the province of Jammu has not derived any material advantage from its existence so far. The extension of the department's activities to that province on a larger scale is apparently necessary.

In the Kashmir valley the Agriculture Department maintains two experimental farms where several varieties of agriculture and vegetable seeds imported from India and foreign countries like America, England, Russia, Italy are tried and recommended for adoption to cultivators after the experiments have met with success on the Government farms. In some cases acclimatised seeds have multiplied the yield by 50 per cent. About 169 varieties of foreign vegetables are also grown on the farm. The seed is distributed twice a year in the valley and demands from other places are met by post.

241 *Implements.*—Several implements such as Meston ploughs, Horse Hoe, 177 Bar Harrow, Chaff Cutter, Maize Huller and Sheller, Automatic Seed Drill have been introduced and though a few only of the zamindars who are enterprising enough have come forward to purchase them and try their utility on their farms an innovation has been started which might prove of considerable value in the future.

543 *Shows.*—Agricultural shows used to be held on the occasions of seed distribution and have now come to form a part of the Industrial Exhibition held annually in Srinagar. The Agriculture Department occupies a separate section where several varieties of different agricultural and horticultural products are exhibited besides the implements and provide a source of valuable information and instruction to the people. In 1979 an agricultural show was held at Jammu

6:India G-3 (1931)1933 AVI Kashmir AVI

on the occasion of the visit of His Royal Highness the Prince of Wales. Besides imparting education by "shows" Departmental bulletins were also published and circulated. The bulletins dealt with the sowing of Maize, Groundnuts, Soybeams and Beams and the removal of certain crop diseases. 543

Manure.—The Agriculture Department has tried several manures on the farm to test their utility on different crops. 242 654

27. **Horticulture.**—The department maintains fruit plant nurseries including ornamental plants. Fruit canning is receiving attention though the industry is still in its incipient stage. A firm known as Kashmir Fruit Preserve Works has been authorised to manufacture fruit beverages, apple-brandy, grape wine and ciders etc. A new nursery has been opened at Achhabal and experiments regarding stock and scion compatibility have been started in all the nurseries and scion wood from Australia has been introduced. The department has been distributing about a lac of young plants annually to the zamindars without any charge.

The only disquieting feature of the decade has been the appearance of San Jose Scale disease which has inflicted a very heavy damage on the fruit industry of Kashmir. Remedial and control measures have been adopted to get rid of this pest. [136]

28. **Veterinary.**—For maintenance of agricultural prosperity the maintenance of live-stock in health is essential. Previous to 1923 the system of inoculation did not exist and consequently the mortality among cattle was heavy. There are now 18 Veterinary Hospitals in the State and the outbreaks of rinderpest, Hæmorrhagic Septicaemia and other epidemic diseases were successfully dealt with on modern scientific lines and many animal lives saved. Facilities have been provided by the department for brining to its notice the outbreak of epidemics and even individual patients. For improvement of cattle several schemes have been under contemplation and awaiting to be put into effect as funds permit. The scrub bull pest is being removed by castration of the scrub bulls. The enclosed table shows the variation in live-stock during the last decade. 232